



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: P.L. Ritzdorf et al.

Attorney Docket No.: SEMT116048

Application No.: 09/386,734

Group Art Unit: 1742

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Examiner: G. Wyszomierski

Title: METHOD AND APPARATUS FOR LOW TEMPERATURE ANNEALING
OF METALLIZATION MICRO-STRUCTURES IN THE PRODUCTION OF
A MICROELECTRONIC DEVICE

(Copy)

AMENDMENT

Seattle, Washington 98101

June 13, 2001

TO THE COMMISSIONER FOR PATENTS:

Please amend the above continued prosecution application, as follows:

In the Claims:

Add new Claims 68-76. Amend the claims in accordance with the attached markup. All pending claims as thusly amended follow:

36. (Amended) A method for reducing voids in a metal material that has been electrolytically deposited into recessed microstructures defined in a surface of a microelectronic workpiece comprising:

electrolytically depositing a metal to substantially fill recessed sub-micron structures in the surface of the workpiece; and then

subjecting the workpiece to an annealing process at a temperature that is at or below about 250 degrees Celsius.

37. A method as set forth in Claim 36 wherein the metal material comprises copper.

38. A method as set forth in Claim 36 wherein the annealing process comprises subjecting the workpiece to a controlled temperature gradient in which the temperature decreases

LAW OFFICES OF
CHRISTENSEN O'CONNOR JOHNSON KINDNESS^{PLC}
1420 Fifth Avenue
Suite 2800
Seattle, Washington 98101
206.682.8100